

the house, by which a tobacco cataplasm could be quickly made; hence it instantly came into mind that he might swallow tobacco smoke as a substitute. He was furnished with a cigar and desired to make vehement efforts to pass the smoke into his stomach. He soon became sick and puked, his whole frame relaxed, and covered with a cold sweat. The bowel was now very easily reduced and the free use of volatile spirits both internally and externally, soon restored him.

Whether this method of using tobacco has generally any advantage over the enema, I am not prepared to say. With women, and with those men too, who are delicate with respect to these obscene operations, it may be preferred, for delicacy ought always to be carefully regarded. I have very frequently used it since for spasms in the bowels, and for hernia; but it has several times entirely failed, owing, as I supposed, to the patient's inability to pass a sufficient quantity into the stomach. Those, moreover, who are unfortunately, or, let us say, viciously accustomed to the use of this poison, are not to be overcome by a small quantity. That smoke can be passed into the stomach by deglutition, I am very certain from my own personal experiments.

Strangulated hernia was of frequent occurrence in my busy and extensive practice, but of all the numerous cases that occurred to me during twenty-five years in Northumberland and its vicinity, every case was successfully reduced. I have performed the operation in three cases only, and these were in the practice of other physicians; one was successful and two were lost by previous sphacelation and a subsequent artificial anus. This success with the taxis, I impute entirely to the prompt and powerful aid of tobacco. If it be objected, that it is a dangerous remedy and that a few patients have been destroyed by it, we reply, that either the disease or the operation is far more to be dreaded than the use of tobacco in careful hands. The scientific physician will consider the strength and idiosyncrasies of his patient, and use the medicine with prudence. When I contrast this with the ignorant temerity with which the nurses and busybodies have often used this article to my knowledge, without measure and yet without detriment, I am fully persuaded that in the hands of skilful, scientific physicians, it ought not to be considered as a dangerous remedy.

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ART. VI. *Case of Serious Injury of the Knee Joint, Terminating in the almost Perfect Recovery of the Use of the Limb.* By DARWIN E. STANTON, M. D.

THOMAS COFFEE, ætat. 18, on the 18th day of May last, whilst engaged in pointing rails with an axe, in consequence of the axe glancing from the

rail, received a severe cut on the outside of the right knee joint. The incision was horizontal inclining inwards and downward, from within a quarter of an inch of the patella, two inches posteriorly, and was of a somewhat conical shape; that is, the opening in the sac was not quite so large as the incision through the skin, in consequence of being made by the heel of the axe, which would necessarily give it the above mentioned shape.

The direction and force of the axe was such, that in passing inwards, it chipped off a portion of the external surface of the femoral condyle, together with a portion of its articulating surface. The edge of the instrument then sank through the external semilunar cartilage, into the head of the tibia, slightly splintering the head of that bone, a little anterior to the head of the fibula. The wound bled freely at first, but the hemorrhage soon ceased. The limb was lying in an extended position, but whilst I was engaged in dressing the wound, the patient, by some inadvertence, caused it to slip from its support and become suddenly flexed. At this moment, the joint admitted a large quantity of air, which entered with a loud gurgling sound. This I considered as imminently increasing the danger of the patient. I immediately placed the limb in an extended position, and by compression with my fingers forced a considerable portion of the air, together with some coagulum from the cavity, and by placing the wound in a depending position and passing my finger into the cavity of the joint, I succeeded in breaking up and removing large portions of coagulum which yet remained.

After this was effected and the cavity perfectly freed from all extraneous substances, such as bits of bone, &c., a flexible catheter attached to a syringe was inserted, by the suction power of which the remaining air was removed; the catheter was then very carefully abstracted and the wound firmly closed by adhesive straps.

The whole limb to the pelvis was then enveloped in a roller, the knee being padded beneath the roller with cotton batting that the pressure might be distributed around the joint evenly. The patient was then placed in bed and the wounded limb secured to an inclined plane, so that the foot was considerably elevated, in which position he rested comfortably.

19th. Comfortable with the exception of slight headache and a little soreness in wound. Upon removing the roller and examining the knee, no swelling had taken place. Diet 4 oz. boiled milk and two ounces bread, twice a day. To be purged with salts.

20th. Some headache; tongue white; some pain in the knee. Complained of tightness of the roller about the knee and of soreness of the wound. Upon removing the roller, the joint was observed to be considerably swollen, with tenderness at a point opposite to the wound over the internal condyle. R. scarified cups, no. ij, over internal condyle. The knee to be kept cool by the repeated application of cold water, and in the evening a large blister, so as to completely envelope the joint, over this the roller. Diet same. To be purged with salts.

21st. Blister had drawn well and discharged freely; swelling increased; knee quite painful; headache; tongue white. Diet, rice soup. To be purged freely with salts.

On the 25th the blister was again applied, and from this time the patient continued to do well. To the 3d day of June the patient remained in bed with the limb elevated. On this day he walked about the room, and from that time continued to perform gentle motions of the joint every day, until the nearly perfect use of it was restored to him. After the 25th of May, the only treatment was purging daily with salts, and the constant application of the roller, the joint as before mentioned being padded with cotton.

The wound did well, with the exception of a few prolific granulations, which were easily subdued with burnt alum.

The only difficulty he now experiences in the use of the limb, is when he ascends a staircase quickly, and when, as he expresses it, "he squats down on his hunkers." In ordinary walking and running, he has the perfect use of the limb.

The peculiarity of this case, is the happy termination of it after so serious an injury. When we consider that even the most trivial injuries of this joint are apt to terminate unpleasantly, and sometimes fatally, and how timid the most skilful surgeons are about the most trifling operations upon this joint, this case is rendered the more remarkable.

The fact that the knee joint should be laid completely open—a portion of the articulating surface removed—the semilunar cartilage divided and the whole synovial surface exposed to the action of the atmospheric air—the event being a restoration of the use of the limb, forms altogether one of those interesting and pleasant cases with which it is sometimes the lot of the surgeon to meet.

*Holliday's Cove, Brooke Co. Va., December 6, 1839.*

*Note by the Editor.*

[Our correspondent has very justly considered the preceding case as invested with much interest from the circumstance of the use of the limb having been restored after so severe an injury to a joint. The apprehensions which he entertained, however, of imminently increased danger to the patient from the entrance of air into the wound, though sustained by the opinions of most surgeons, we think wholly unfounded. It was taught by Monroe, that air, is an active irritant to the synovial membranes; and this doctrine has since been pretty generally received, without, it appears to us, a sufficient examination, and in opposition to some well-determined facts. No positive experiments, so far as we know, can, it is true, be cited in contradiction; but clinical observations certainly afford no evidence in its support. Very severe symptoms undoubtedly, often arise from exposure of a joint to the air; but may not these with more propriety be referred to the circumstances which attend the injury, the nature of the wound, improper treat-

ment, &c., than to any irritating properties of the air? In favour of this view many examples might be adduced. Dr. Bond relates a case in which "the patella was cut across transversely by a blow of an axe, and divided into two nearly equal portions, so that the joint was laid open," and Dr. B. "had a direct view into it. The patient was a healthy boy, aged eight years, and the fragments of the bone united without any apparent affection of the synovial membrane." (*Philadelphia Journ. Med. & Phys. Sci.* Vol. II. p. 273.) Other instances in which joints have been freely opened without any bad symptoms accruing might be cited; whilst on the contrary the most violent effects have often resulted from injuries of joints in which the wound was too small to admit the passage of air. It thus appears that the possession, by this fluid of any property by which it is enabled to excite irritation in synovial membranes, remains as yet to be proved; though it is not to be denied, that a current of air may prove injurious to these membranes by its temperature, when this last is different from that of the tissue; or by absorbing the moisture of the parts, and thus placing them in an unnatural condition. But we have discussed the subject of the action of air on the different tissues so fully elsewhere, (see *American Cyclopædia of Practical Medicine and Surgery*, vol. I. p. 263—270,) that we need not enter into further details here.

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ART. VII.—*Remarks on the Climate, Population, Diseases, &c., of Malta, with an account of the Asiatic Cholera as it occurred in that Island and Gozo, in the summer of 1837.* By PLINY EARLE, M. D., of Philadelphia.

THE island of Malta, the ancient Melita, situated between the southern extremity of Italy and the African coast, is in latitude  $35^{\circ} 50'$  north, and in longitude  $14^{\circ} 15'$  east. Its length is twenty miles, its greatest breadth twelve miles, and its surface, on the supposition that it were a perfect ellipse, 188 square miles. Its soil lies upon a continuous bed of limestone, which is soft in texture, light in colour, and far from being durable as a material for building, soon crumbling when exposed to the elements. The southern coast, throughout nearly its whole extent, is inaccessible, the rocks rising, in nearly perpendicular cliffs, to a height, in some places, of 300 feet. The soil, though neither rich nor deep, is in a state of the highest cultivation, and, under the auspices of a mild climate, furnishes to the cultivator two crops in the year. The number of species of native plants, according to Dr. Zerafa, is 644; but it is thought that, were a perfect list made, it would amount to 700. Many of the species are papilionaceous; but few of them belong to the labiatae.